Typhus Fever

with notes,

and charts of sixteen cases:

by

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In writing this paper I have laboured under several disadvantages, the greatest of which has been the loss of all my notes by fire, which happened in my rooms twelve months ago; a second disadvantage has been, that being engaged in an extensive country practice I have not been able to devote the time to it, which I should have liked and ought to have done.

All the assistance I have had, has been from my notes on the lectures given by Professor Gairdner, at Glasgow University - 1887-88, and the assistance of Balstowe's Medicine and my notes taken at the bedside of ~~most~~ the cases I attended, which necessarily are very meagre.

I think there can be no doubt but that Typhus Fever is a disease which is dying out in the British Isles; in fact there are comparatively speaking only a few Medical men of the younger generation who have met with the disease: and I also think that this diminution is for the most part dependent upon our improved Sanitary laws — our improved dwellings and drainage systems; and doubtless, now, the Notification Act very soon exerts its influence & power when an epidemic does break out and so holds it in check. This was very noticeable in an epidemic which broke out in Cardiff in 1892; the disease occurred in one of the lowest quarters of the town, and but for the promptitude displayed by the authorities, the epidemic would have spread very considerably, as

all the conditions favourable to Typhus Fever were present. As it happened there were only some 40 cases notified and removed to Hospital and so a further spreading of the disease was stopped.

In Ireland it is still to be seen in its epidemic form, both in the rural parts of the country & also in the large towns. It seems to be most prevalent in the South-western and western portions of the Island. It was whilst living in Co. Clare that I had under my care sixteen cases:, charts & notes of a few of the cases I append with this thesis.

"Typhus Fever" is synonymous with the "Maculatory Fever" of Graves, & the Petechial Fever of Barker & Cheyne.

In the early part of the century, the cash of Typhus Fever was not looked

upon as being necessary to the Fever and it was ~~but in the~~ classified with the "Febres" but not with the Exanthemata. It was in 1835 that Dr Peebles first definitely described the rash and so distinguished it from Typhoid or Enteric Fever.

But in 1819 Rasori [?] in Italy described a disease - Morbo Petechiale - which is doubtless the Equivalent of our Typhus Fever.

Pectis Bellica, Jail Fever, Hospital Fever, Camp Fever &c. &c. and The Plague are probably names applied to this disease.

Typhus Fever was also at one time, looked upon as being the same disease as Relapsing fever.

Typhus Fever.

Definition: An Epidemic & Contagious disease, terminating in two or three ~~weeks~~ or at most four weeks, attended by formidable symptoms, referable to the Nervous system, also in most cases by a specific cutaneous eruption, but generally without important or fatal internal organic complications.

(From notes taken at Prof. Gairdner's lectures).

Etiology:

Typhus Fever appears to be a disease of temperate and cold climates and the United Kingdom seems to be its head-quarters, particularly Ireland. It has been introduced into warmer countries and even into Tropical countries but I believe has never become Epidemic there.

It appears from time to time

in our towns and villages as an epidemic but is rarely seen in purely rural parts of the country. In England it is rarely seen at all now, except occasionally in our large towns, but from Ireland it is scarcely ever absent and in fact it is a comparatively frequent disease in the Southern & Western portions of the Island.

It is to be noticed in connection with this disease that during an extensive & serious Epidemic, it is not so severe throughout the Epidemic, but seems to increase and diminish with the fall or rise in the temperature. Thus on the whole the greatest number of cases occur during the winter months. Females and Young persons compose the majority of the cases, but the heaviest rate of mortality is amongst

the adult males.

Like the other exanthemata one attack confers immunity against subsequent attacks, although occasionally people have been known to have had two or three attacks. This is a very rare occurrence and very likely these so-called "second" attacks are not real, but may probably be put down to an Error in diagnosis.

Typhus Fever is an eminently contagious disease, but perhaps not to such an extent as Scarlet Fever or Small Pox. The area of contagion is limited to a comparatively small space around the patient, and it would seem as if the contagium were destroyed by diffusion through the air. It is most probable that the contagium is contained in the exhalations of the patient, as there is to be noticed a characteristic heavy smell

in the patient's breath as well as from the general surface of the body. It is doubtful whether the other excreta are infective or whether the disease can be imparted by the dead body. Free dilution with fresh air renders the poison non-infectious, hence we see the necessity for providing a large well-ventilated room for the reception of these cases. "Typhus Fever is most contagious from the end of the first week up to convalescence" (Gairdner's lectures).

That Typhus Fever may and does originate de novo is almost an absolute fact; although there are some credible writers who still adhere to the hypothesis that the contagium lies latent and under suitable conditions breaks out again in the form of a distinct epidemic, & that it does not really arise de novo.

From what I saw of the disease and

was told by old practitioners in Ireland (Co. Clare) I feel convinced that it does very often arise de novo.

Murchison says that it is rare for Typhus Fever to be absolutely wanting in a large Community especially when it is a poor one (Gairdner's lectures). This is scarcely true now, due no doubt to our better & improved sanitation & modes of living.

If we examine carefully the details of an epidemic, we find as a rule, the first cases arising in the most populous and poorest parts of the town (if in a town) & in a given street, in the most crowded houses, where as a rule we find everything which tends to breed Typhus e.g.:- over-crowding, deficient ventilation, absence of all cleanliness & want of light &c. &c. This perhaps explains the comparative

immunity of purely rural districts and the better classes of people and also explains the greater prevalency of the disease in the Winter months, when the houses are kept closed and badly ventilated and there is also overcrowding for the sake of warmth.

No doubt bad food and scarcity of food will favour the spreading of the disease, yet these are scarcely such essential conditions as overcrowding undoubtedly is. A person who is half starved, badly fed and clad cannot resist the attack nearly so well as one who is better off, & so amongst the former we find a greater ratio of mortality.

In the sixteen cases which came under my <u>direct</u> notice in Co. Clare Ireland, there was no evidence to show clearly, how they arose. <u>All</u> my cases

were in purely rural houses & the majority of them were <u>isolated</u>; the distance from each other being from 7 to 12 miles, and I could gather no evidence of intercommunication. Besides these cases 2 others occurred, making in all 18 cases in a scattered district 22 miles by about 9 miles with a population of about 7,000. The small <u>central town</u> in which I was living was quite free from the disease; this was rather remarkable I thought, because it was the market (sic) town & it was ~~in~~ this town that all the neighbouring people frequented for the purpose of dealings.

In one house, in particular, where I had three cases, was there evidence of the particular conditions which are so suitable to the development and propagation of the disease. The

cabin was a low thatched building containing one fair sized living room (measuring about 2,000 cubic feet) and two very small bed-rooms. The occupants numbered thirteen aged from 11 years up to 45, besides a number of fowls and a litter of pigs. There was no ventilation except that which existed between the chimney & the door, and a window about two feet square admitted light. The yard or garden around was one mass of half rotten and decomposing manure from which a horrible stench arose; Attached to either end of the building was a small cow-shed which was evidently only cleaned occasionally. Under these circum=stances and with no evidence of infection, I came to the conclusion, as did my colleague Dr Jas Mooney that these cases arose de novo! In several

other cases which I had under my care the conditions were very much the same.

Pathology: Of the Pathology of Syphus I find little is known that is at all definite.

At the P. M. which I made very hurriedly on the fatal case I attended, I found there was no cadaveric rigidity 26 hours after death. The heart's cavities were filled with soft coagula, the blood elsewhere being fluid and dark in colour. Nothing was noticeable about the brain; I could find no change in the cervical ganglia, which I examined on one side of the neck only, and I scarcely expected to as she died on the 23rd day of the disease and the change which is sometimes found is seen as a rule, when death occurs

in the earlier stages. The ganglia of the cervical sympathetic are spoken of by some writers as being enlarged by a granular amorphous deposit. Sometimes this deposit is seen only in the ganglia on one side, an occurrence which probably accounts for the difference in temperature in the two axillae, which occasionally has been observed.

"If this lesion is an essential
" feature of the disease, it would certainly
" afford an explanation of the localisation
" of the symptoms of the disturbed
" functions of the brain and of the
" weak action of the heart: but granting
" this, we come no nearer an explanation
" of the infection, and of the reason why
" its force should be spent on these organs
" alone." (R. Beveridge Quain's Medicine).

The heart I found very flaccid, and flabby, but no definite alteration

in its structure. The intestines were normal as were also the liver and kidneys, with the exception of slight passive congestion. The spleen was much enlarged - weighing 13 3/4 ounces. There was grey hepatization far advanced of the bases of both lungs.

Symptoms:

The latent period. The first invasion or onset of typhus fever is very similar to that of other febrile disease.

Rigors may be absent or repeated at intervals during the early days. There was a history of this mode of onset in 14 of my cases.

Vomiting is not uncommon in cases where the stomach is loaded, but it rarely persists. This symptom is more frequently seen in young children, than in adults.

Headache is almost always present in various degrees, and loss of appetite follows and there is great thirst:- then prostration and a feeling of depression comes on and in a few days the patient takes to his bed. When seen during the first two or three days, there is little that is characteristic of Typhus Fever to be seen. In the absence of a history of infection it is difficult to form an idea as to the nature of the ailment, and an opinion should not be given. The above symptoms are closely followed by others of a more definite character, which will leave little doubt in the mind of the attendant as to the diagnosis of the case:- These are a sense of exhaustion out of all degree to the amount of the fever. The temp-erature may reach 104° or 105° not

intermitting but frequently remitting & with sometimes transient and slight perspirations in the intervals of remission.

Pulse. The pulse is raised to 100 or 120 per minute & quickly becomes weaker.

There is a certain amount of dulness of the senses with confusion of ideas. The patient is restless and apathetic with regard to internal impressions and there is a characteristic heavy stupid look in the face. The face is bronzed and congested & the eyes suffused & injected. The Headache increases and pains in the bones and uneasiness are complained of, and the patient is restless. There is intolerance of sounds and light to a slight degree.

The tongue is covered with a silvery or dark brown fur and is very dry — early clean or moist, - the papillae are

moderately injected.
The bowels are slow and irregular, generally constipated.
The Urine is abundant.
There is a high degree of muscular weakness.

Complications in the first stage:-
Apart from Bronchial catarrh, (which is as a rule not extensive,) during the first week the only complications to be noticed are pulmonary catarrh and diarrhoea. The former is rather common, the latter unusual.
I had only one case in which pulmonary catarrh was present, but only to a slight degree in the first week.
Diarrhoea was not present in any.

The Rash which marks the disease occurs as a rule towards the end of the first or beginning of the second week - from the fifth to the eighth days. It is

present in a large majority of cases, but it may in some instances be overlooked. I found it to be invariably present in the cases I saw, but in some of them noticeably in Cases 7, 9, & 12 it was very indistinct. This rash is continuous until the fever has reached its height and sometimes until after convalescence.

The rash occurs on the abdomen, thorax back and extremities, and on the neck- I never saw it on the face - In the extremities I noticed it to be more distinct upon the extensor surfaces.

~~The~~ Its appearance is preceded and accompanied by an irregular diffused mottling of the skin; in the midst of this mottling is seen after a few hours a number of pale, small, purplish round spots not raised or circumscribed, and disappearing momentarily on pressure. The spots

if scarce appear simultaneously, but if numerous may come out in successive crops extending over two or three days. They enlarge slowly and slightly and become more irregular in shape and deeper in colour - livid or dusky - and are often confluent. They often cease to disappear on pressure when they become pale at the edges & rather indistinct. In very bad cases petechiae have been noticed.

This rash is more marked on the trunk about the middle part of the abdomen and may be limited to this region.

The rash is an exaggeration of the previous mottling - which is a previous congestion of the superficial dermis, seen through the epidermis. The mottling of the skin deepens in colour up to the height of the fever and the spots are deeper also appearing as the centre of the patches of mottling. A few days after their

appearance the haemation transudes the capillaries which accounts for the spots not disappearing on pressure.

In the year 1864 the rash was noticed in 97% of cases admitted to the London Fever Hospital. In only 16 cases the rash was present in all. In an Epidemic which occurred in Cardiff in 1872-3 the rash was also present in all, but very indistinct in several cases which occurred among the young children. Generally speaking the more abundant the rash is, so is the case more severe & protracted.

<u>During the 2nd week</u> new symptoms appear which with the rash give a more definite character to the disease - viz <u>the Typhoid symptoms</u>. These taken as a whole are the previous symptoms very much intensified and the early or late

advent and intensity of these symptoms determine the danger of the case.

The pains in the head & limbs, the general uneasiness ~~& restlessness~~ and intolerance of external impressions may abate considerably, but the muscular prostration, the rapidity of the pulse and confusion of ideas with increased mental disturbance are much more marked. The temperature remains as a rule a little lower until towards the end of the 2nd week: Sometimes the extremities are cold; This diminution in temperature is sometimes sudden when it is attended by free sweats which prostrate the patient instead of relieving him. "Sweating is not as a rule the crisis or if it is it tends to precipitate an unfavorable issue" (Gairdner).

The Pulse becomes more hurried, soft and feeble and occasionally intermittent and sometimes markedly dicrotic, especially if there be any heart lesion.

(In cases which have proved fatal in the second week the pulse has been described as being imperceptible at the wrist and the first sound of the heart soft and muffled.)

The suffusion of the face ceases or the colour may become more dingy and livid. The expression is not anxious and oppressed as in the 1st week but is more vacant. Replies to questions are vague and elicited with difficulty and only after the patient has been thoroughly aroused. There is no uneasiness when spoken to and no complaints are made, and there is often deafness to a greater or lesser degree. When left alone undisturbed the patient mutters to himself, raises himself in bed and even attempts to leave the bed. As a rule there is little sleep but the patient seems to lie in a perpetual dream. When disturbed — in mild cases — he will perhaps admit that he has been talking nonsense but cannot help it and

when left alone he soon elapses into his former state. The patient very often in comparatively mild cases, is like this and even mistakes well-known persons. This state – the commencement of delirium occurs often, only during the night. Therefore it is important to see the patient if possible at night.

The muscular power is very much weakened and all movements are uncertain and purposeless. These fitful efforts at move=ment are followed by debility & prostration.

The most obvious and necessary wants, if requiring only slight observation are neglected:- E.g. Evacuation of bowels & bladder. These symptoms are an indication that the typhoid state is pronounced, and every care must be taken to attend to the patients' needs. The hand trembles and the fingers wander mechanically to whatever is nearest. Nothing is grasped

or asked for, nor can the patient convey anything to his lips. His eyes stare vacantly into space or remain half closed and the ears rarely catch any ~~footsteps~~ sound of footsteps or voice. He lies supine in bed and rarely moves the body, and the limbs are allowed to lie in any position.

The urine dribbles away, and in bad cases the faeces are passed without control or assistance. Under these circumstances the discharges are most apt to be retained and the bladder if examined will be found to be distended - i.e. overfull. Sometimes the urine it is augmented or diminished in quantity. Hence the necessity for a frequent examination of the abdomen and the use of the catheter when in doubt.

The mouth, teeth and lips are covered with sordes and the tongue becomes coated with dark brown incrustations - and is much smaller and more dryer and cracked

on the surface. This is called the Roasted Tongue. It is protruded with difficulty and very slowly and not beyond the margin of the lips. It trembles very much on protrusion and is retracted slowly

~~Sub~~ Subsultus Tendinum is also sometimes seen in bad cases. More often, in serious cases we find there is "picking at the bed-clothes".

Emaciation makes rapid progress and in cases which are about to prove fatal, the features are pinched and haggard and the pupils of the eyes contracted, sometimes to a pin's point in size. The body becomes bedewed with moisture and the extremities cold and the pulse imperceptible at the wrist;- the patient becomes completely unconscious - the respiration becomes very slow, - six or seven or even fewer per minute and is accompanied by a snoring noise. The heart's action can

scarcely be detected, the general surface of the body becomes cold and death soon follows. The temperature in the rectum is said to be higher, just before death than at any other period of the disease. My friend Dr Downing of Cardiff noticed in one case a Temp. of 108·2° in the rectum of a child dying on the 10th day 12 hours before death: twelve hours before it had been T 103·8° F.

Death may take place at any period of the disease. It is rare in the first week and not common before the 10th day (Gairdner).

From this day on every day added to the duration of the fever is attended with increasing danger to life.

A rapid development of the typhoid symptoms is a very unfavourable occurrence. After the close of the third week a fatal termination rarely takes place except in complicated cases. It is really in the typhoid state that we have to watch and guard against the occurrence of danger.

The average number of deaths as taken from the epidemics of past years, may be stated as from 10 to 40 per cent.. But under good management and favourable conditions not more ~~than~~ than from 8 to 12 per cent will die. The mortality varies according to the age. In the young the mortality is low and increases considerably to middle age, and is very high after middle life (50 per cent Lond Fever Hosp. reports). The case which proved fatal under my care was complicated with double basic Pneumonia - She died on the 23rd day.

In cases which end favourably, the disease may begin to subside at almost any time within the 2nd or 3rd week. The defervescence of the temperature may sometimes be observed in the 1st week, although I have not seen it definitive so early. But from the 10th day of the fever, onwards it is so common as to be almost the rule for a decrement to ~~take~~

begin, which goes on either uninterruptedly or with insignificant remissions of exacerbations, up to the 14th day or 15th day or perhaps later. It is not the rule to have a very sudden fall in the temperature or crisis within 24 or 48 hours but this sometimes occurs (as in case 11). Dr Hutchinson says that there is a definite crisis about the 14th day; I am more inclined to agree with Prof. Gairdner from my own observations that there is a tendency to a crisis as early as the 10th or 11th day but not a sudden one which may be completed by the 13th or 14th day as in Cases 1, 2, 4 & 8.

The fall in the pulse rate is often one of the first favourable indications of approaching convalescence and is a very safe and sure guide. Sometimes a very rapid pulse & not infrequently a markedly slow pulse is to be seen at this period. The pulse gradually regains fulness and is hyperdicrotic

which I consider characteristic of this stage of the fever. It may continue soft and sometimes irregular or intermitting for several days, but these typics must not be looked upon as altogether unfavourable.

When the tongue moistens and cleans, the fur separating gradually and insensibly but sometimes rapidly and in patches leaving the tongue rather tender. As a rule the dorsum remains furrowed and cracked in the centre.

The skin as a rule is dry but it may become moist; profuse sweats are very rare and as a rule are said to be of an unfavourable omen.

The intelligence returns gradually and delirium paces away, and the patient sleeps soundly & awakes refreshed.

The patient is often left deaf as happened in two of my cases: This did not pass off until after convalescence was established.

Even common sensation is impaired in some cases and the mental powers are sometimes weakened. There is an absence of all agitation and depression but the body is left prostrate & debilitated but may soon recovers, the appetite being soon established even without the aid of medicines, and in a few weeks strength and flesh are completely regained.

It has been observed sometimes that convalescents from Typhus Fever are in more robust health after an attack than they were before. This I noticed particularly in Cases 2, 4 & 9.

If the eruption has been copious or has not disappeared before the defervescence of the fever, it gradually fades away. But if it has been very copious and deep in colour it remains as a faint grey purplish mottling for some time.

The urine in the commencement of

of the disease is as a rule scanty, high coloured, of high Sp. G. and acid in reaction, and contains an excess of urea and sometimes of urates and uric acid, the former being deposited: as the disease progresses it is more abundant and pale, and the urea is deficient. The Chlorides are also deficient but I did not observe in any case complete absence.. Albumen was present in one case I attended, and there was a considerable amount of it. Under the microscope granular tube-casts were seen with altered blood-corpuscles. The albumen did not disappear until long after convalescence.

Complications:

There are some complications, special to Typhus Fever and others are common to all fevers.

The Complications of Typhus Fever

are not numerous but of great importance especially when taken with regard to prognosis.

Sloughing of those parts exposed to pressure is one of the most frequent complications — Bedsores — and is a most formidable one when met with, as there is such a liability to gangrene of the part. This occurs towards the end of the fever and when the fever extends into the third week. It begins as a slight blush scarcely amounting to erythema, with slight pain and swelling, perhaps over the Sacrum or over one Trochanter. Then abrasions follow, which may be succeeded by a blackening of the superficial tissue and gangrene over a varying extent. The slough separates involving the textures underneath and falls out in a few days. A clean surface presents itself, disposed to granulate and heal slowly and gradually. This complication is more frequent in

Typhus fever than in any other fever, and is especially more frequent when the urine and faeces dribble away and the bed is not well attended to. This took place in three of my cases: One case was particularly bad where there was a slough measuring 3 inches in diameter.

Allied to this condition but of far more importance is when there is gangrene of the extremities apart from pressure, involving the whole thickness of the integument when a toe or a foot or even the nose or any other part of the body may slough. I believe this condition has been a very rare occurrence of late years and possibly is dependent upon constitutional idiosyncrasy.

Catarrh: A certain amount of catarrh is a very common accompaniment of Typhus fever. Wheezing and mucous râles are heard on auscultation.

and there is lividity of the lips. This rarely affects the termination of the cases, unless very severe. In most cases of Typhoid debility there is a certain amount of mucous accumulation in the Bronchial tubes and it can scarcely be called a complication as it is an inseparable consequence and an indication of the constitution. There was but one case of the 16 I attended, in which there was not a certain amount of catarrh but in only one was it at all severe or calling for special treatment.

Pneumonia, Pleuritis and Bronchitis I do not think are more common than in other fevers, but I believe that almost invariably cases complicated with ~~the~~ Pneumonia terminate fatally, as happened in Case V. Perhaps this case ~~other~~ would have recovered, had she come into hospital earlier and been properly nursed.

Laryngeal affections:

Catarrh of the larynx occurs more or less in a considerable number of cases especially when there are pulmonary or bronchial complications; but in a smaller number of cases it forms a serious complication as there is an impediment to the free admittance of air.

Laryngeal affections, when serious are said to be fatal in one third of those cases in which they occur. (Gairdner).

Stridulous inspiration will be noticed in these cases with violent coughing and loss of voice. These may be aggravated by muscular contraction ending fatally. (Gairdner's lectures).

Diarrhoea is the only abdominal complication which may call for notice. It is occasionally severe and urgent, but in the greater number of cases it is either absent or only present to a slight degree,

as shown by two or three loose motions in the day. In 144 cases in 1856 the bowels were constipated and laxatives required; in 15 only was there any approach to diarrhoea and in 6 only were astringents required. (Murchison).
In only one occasion had I to use lead and opium and the excessive use of the bowels was stayed in 24 hours nor did it return.

Constipation is more characteristic of Typhus fever than diarrhoea, occurring in about 75% of cases. Diarrhoea is probably dependent upon epidemic or atmospheric causes.

The diarrhoea of Typhus is unattended by pain or tenderness of the abdomen; the stools are loose, faeculent but not copious. Haemorrhage, dysenteric symptoms or meteorism are very rare. Peritonitis never occurs:- Thus contrasting

with Enteric Fever.

Cerebral symptoms differing from those previously described occasionally occur. A maniacal delirium sometimes is seen but it is exceptional. My late Colleague (Dr Molony, Co. Clare). told me of one case which he attended in 1847, in which the patient suddenly developed these symptoms, which rapidly went on to into Coma and death ensued in 16 hours; the man being insensible for 4 hours before death.

General convulsions have been noticed similar to those occurring in uraemia, and have always been fatal.

The Pupils of the Eyes are very often Contracted even to the size of a pin's point, this is almost always seen in Cases about to prove fatal.

The severity of the headache in the early stage is very often not commensurate with the violence of the general cerebral symptoms.

It sometimes happens that headache is

absent and delirium comes on early and may even prove fatal. In case 6 the delirium at the commencement of the second week was very violent indeed and no headache at all had been complained of. Professor Gairdner believes that any violent headache, instead of being ominous as one would naturally suppose, is a favourable symptom; as being an evidence that the patient is wide awake.

Quite half of my cases suffered very severely with headache and I am quite inclined to agree with Prof. Gairdner.

Profuse Sweating in the course of the disease is unfavourable as it is not connected with the crisis, but is an indication of the increased nervous force and of increased pyrexia. Prof. Gairdner speaks of one case in which such profuse sweats coming on in the second week and which proved fatal (Lectures 1867-68).

In mild cases in warm weather the skin may naturally be moist, but we do not look to have profuse perspirations as in other fevers.

Abscesses may form in any part of the body. - The parotid, submaxillary, axillary, and inguinal glands are most particularly prone to ~~be~~ inflame.

These generally prove fatal, but I do not think that abscesses have been nearly so numerous ~~during~~ in the epidemics of the last twenty years, as they were formerly. This no doubt is due to the better plans of general treatment &c.

Sequelae: - These as a rule are not troublesome or dangerous, especially in persons who previous to the attack were in robust health.

Indigestion and Anaemia are occasional and appropriate treatment soon cures them.

Oedema of the feet - ~~Leuc~~ Phlegmasia dolens - Rheumatism & Neuralgia are occasionally seen. Case 2. when convalescent had oedema of the feet for 2 or 3 months but only slightly - Albuminuria was also present.

Relations to Pregnancy: In all febrile conditions there is a general disposition for pregnant women to abort.

Professor Gairdner in his lectures (1857-8) mentioned that in 107 cases among pregnant women in London in 1857 (?). forty-nine aborted between the 10th and 14th day and nine died: and again of 46 pregnant women in Glasgow 15 aborted and two died. As a rule if viable the infant lives. Dr Murchison relates a case of desquamation of the cuticle of the foetus in a case of abortion. (Gairdner).

Dr Molony in his experience in Co Clare through three extensive epidemics, told me

that about half the pregnant women aborted, and that about 5 % of these died.

Relapses:

Once typhus fever does not relapse. - I believe there is only one case of relapse recorded in Dr Murchison's treatise on the Continued Fevers (Gairdner).

Treatment may be divided into Preventive and Curative.

Preventive: On first becoming aware that typhus fever has broken out, the patient should at once be isolated and placed in a large, well-ventilated room, or if there is an infectious hospital, he should be removed at once to it. No communication whatever should be allowed with the relatives unless with those (if any) who have had the disease. The removal or change should be effected early in the disease & the patient should not be allowed to walk.

Curative.

No medicine seems to have the power of cutting short the fever. The principle point to be attended to is to keep up the patient's strength to the highest possible pitch for a fortnight until the fever naturally lessens. For this purpose careful nursing by a competent trained nurse is essential and the patient should not be allowed to leave the bed at all unless he is carried from one bed to another. It is best where possible to have two beds for each patient, one for the day & one for the night, and to change the patient twice daily.

The patient should be fed at short intervals.

Milk in some form is without doubt the best food on which to place Typhoid and patients will take up to 2 quarts per day without inconvenience, but it requires to be given only in small quantities at a time,

as a food and not as a beverage. A little lime-water or soda-water may occasionally be added with advantage.

Strong beef-tea & soups may also be given, but they require not to be pushed too far as they are apt to disagree.

Water is the best thing for the thirst, either iced or acidulated and should be given frequently even though not asked for.

Alcohol should not be used indiscriminately: it can as a rule be dispensed with in young people, in adults also except in certain cases or in those who have been previously addicted to its use and abuse. In the ~~old~~ middle aged I believe it is as a rule essential. When given it should be given as a tonic and the result watched for and repeated when necessary.

Brandy is I think preferable to any other form of stimulant.

For the Headache and sleeplessness I placed most reliance upon the use of cold applications to the head, either evaporating lotions or the ice-bag after cutting or shaving the head.

In the way of drugs I used my little and I believe Quinine in small doses to have had a very good effect in most of my cases.

I used Bromide of Potash for sleeplessness and delirium in several cases but was not satisfied with the result.

Bromidia in two cases gave much more ~~solid~~ satisfactory results.

Opium (Liq. opii sed. Battey's M. 15) I used in one case but the delirium seemed to get worse & I did not employ it again.

For the constipation either Castor oil or Compound Liquorice powder are the most suitable.

The Bladder must always be

attended to especially when it is constantly dribbling away. The catheter should be used regularly in those cases in which the patient cannot make water & also when the urine is constantly flowing, - The latter happens as a rule because the bladder is over-distended.

The room should be kept perfectly quiet and darkened in those cases where the brain symptoms are particularly prominent.

The indications of Pulmonary congestion must be carefully watched for and appropriate treatment prescribed, as in the ordinary form. In these cases I think alcohol should be used freely - at least much more freely than in an uncomplicated case.

To prevent the formation of bedsores is very important, and in connection with the prevention I would mention that apart from

strict cleanliness & careful attention to the bed &c. a very important item is that the position of the patient which is generally supine should be frequently altered.

Sponging with tepid water I ordered for each patient from the commencement of my attendance.

I do not think that there is any disease which proves the advantage of competent nursing to such an extent as Typhus Fever, and I am strongly of the opinion that the recovery of my patients was greatly enhanced by the thoughtful & self denying care of the two old nurses who looked after the patients.-

Further on will be found the charts of the cases with notes of a few of the cases. The full and complete notes I unfortunately lost in a fire.

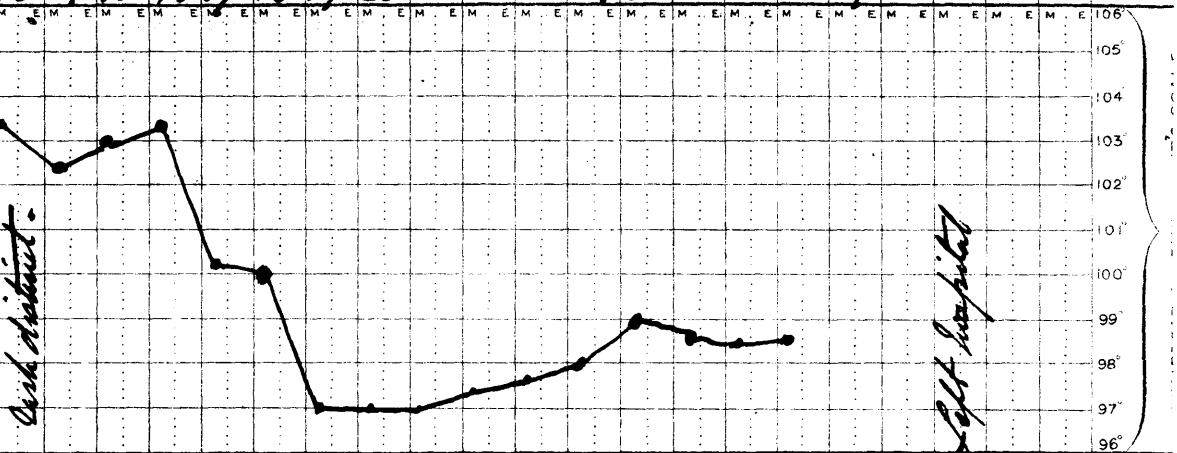
Case I

CLINICAL CHART OF TEMPERATURE, &c.

Name Callaghan Age 24 Disease Typhus. Result Cure

May. DATE 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

TEMPERATURE FAHRENHEIT'S SCALE.



Pulse M	116	120	112	100	96	92	72	72	64	68	70	70	64	64	68	68						
Pulse E																						
Resp M	26	28	36	32	28	26	20	20	22	18	18	18	18	18	18	18						
Resp E																						
Motions	=	=	1	-	-	1	1	1	1	1	1	1	1	1	1	1						
URINE No. or Ozs.																						
URINE Sp. Gr.																						
URINE Reaction																						
URINE Chlorides																						
URINE Albumen																						
DAY OF DISEASE	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27			

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Case I.

Callaghan. aged 24. M. Cured.

Admitted on 9th day of the disease.

T.T. well marked by mottling and rash.

Bronchial catarrh present - troublesome cough.

Pains in head & limbs very severe.

He is very heavy & stupid and irritable and wanders when dozing, does not sleep at all

Ordered. Mixture containing Liquor. Ammon. Acet.

Except for the catarrh & cough the patient improved, and took nourishment very well; He was not ordered any stimulants.

The bowels were constipated but Comp. Jalap powder relieved.

He left Hospital 16 days after admittance and walked home a distance of 6 miles. He visited me every 3 days for a month afterwards.

Case II

May.

CLINICAL CHART OF TEMPERATURE, &c.

Name Murphy Age 18 Disease Typhus Result Cured

DATE	11	12	13	14	15	16	17	18	19	20	21	22	23
Pulse M	86	110	116	120	104	88	80	88	64	70	66	70	
Pulse E													
Resp M													
Resp E	34	30	30	32	26	32	24	26					
Motions	1	2	2	1	2	1	2	~~0~~	1	2	1	1	
URINE No of Ozs.													
URINE Sp Gr.													
URINE Reaction													
URINE Chlorides													
URINE Albumen			~~Albumen~~ present										
DAY OF DISEASE	8	9	10	11	12	13	14	15	16	17	18	19	

TEMPERATURE FAHRENHEIT'S SCALE. 106° 105° 104° 103° 102° 101° 100° 99° 98° 97° 96°

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May 13. Urine drawn off - numerous tube casts seen (Microscope).

The patient improved but did not pass water until the 16 day of the fever. The albumen persisted for three months after convalescence from the fever

Th Murphy aged 16. In. Cured

Admitted to the fever ward with well marked Typhus Fever; - the rash being particularly abundant. The bowels had not moved for 3 days & the urine had been dribbling away for 12 hours. - He was talking very wildly.

He had taken no food of any kind with the exception of cold water for 24 hours previous to admission.

The Bowels were moved well by an Enema.

The bladder was emptied. A little milk and brandy was given every hour.

A mixture of Quinine & Opium wine was ordered

May 12. The ninth day of disease.

Has been very delirious - no sleep. - taken little ~~food~~ nourishment - passed no urine.

Answers incoherently to questions, but complains of severe pain in the forehead.

Quinine discontinued.

Urine drawn off contains albumen in large quantity.

111

CLINICAL CHART OF TEMPERATURE, &c.

Name Pat. Pewter Age 10 Disease Typhus Result Cured

June

DATE	4	5	6	7	8	9	10	11	12	13	14	15
Pulse M	116	116	104	100	100	92	84	88	80	80	76	
Pulse E												
Resp M	32	28	32	30	32	28	22	20	20	18	18	
Resp E												
Motions	—	—	—	2	2	—	2	1	1	1	1	
URINE No or Ozs.												
URINE Sp Gr.												
URINE Reaction												
URINE Chlorides												
URINE Albumen												
DAY OF DISEASE	5	6	7	8	9	10	11	12	13	14	15	

TEMPERATURE FAHRENHEIT'S SCALE.

106° 105° 104° 103° 102° 101° 100° 99° 98° 97° 96°

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Pat Powter aged 10 M. Cured.

Nothing called for special notice in this case, except the constipation on admittance, which resisted moderate doses of Castor oil. The temperature was not very high, the typhoid state only slightly marked

Case IV
1850 June

CLINICAL CHART OF TEMPERATURE, &c.

Name Lizzie Pewter Age 15 Disease Typhus Result Cured

DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Pulse M / E 120		108	92	92	100	100	108	108	108	104	96	80	80		
Resp M / E 36		32	32	28	36	32	40	36	32	28	24	20	20		
Motions		2	-	2	1	1	1	4	-	2	1	1	1		
URINE No. or Ozs.															
URINE Sp. Gr.															
URINE Reaction															
URINE Chlorides															
URINE Albumen															
DAY OF DISEASE	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

TEMPERATURE FAHRENHEIT'S SCALE. 106° 105° 104° 103° 102° 101° 100° 99° 98° 97° 96°

Eruption declined

Eruption full out

Eruption declining

TEMPERATURE FAHRENHEIT'S SCALE. 106° 105° 104° 103° 102° 101° 100° 99° 98° 97° 96°

Pulse Resp Motion URINE No. or Oz Sp. Gr Reactio Chloride Albume DAY OF DISEASE

PUBLISHED BY FANNIN & COY. Medical Booksellers and Surgical Instrument Makers, 41, GRAFTON STREET, DUBLIN

Case IV.

Lizzie Pewter 15 F. Cured.

In this case a large bed-sore formed and for several days was very troublesome, but when the fever declined it soon healed and she rapidly recruited her lost ground.

The eruption was not noticed until the 8th day in this case.

Large doses of Quinine grs xx & grs xxx were employed but with no result.

On complete recovery this girl ~~this~~ was in much better health than before.

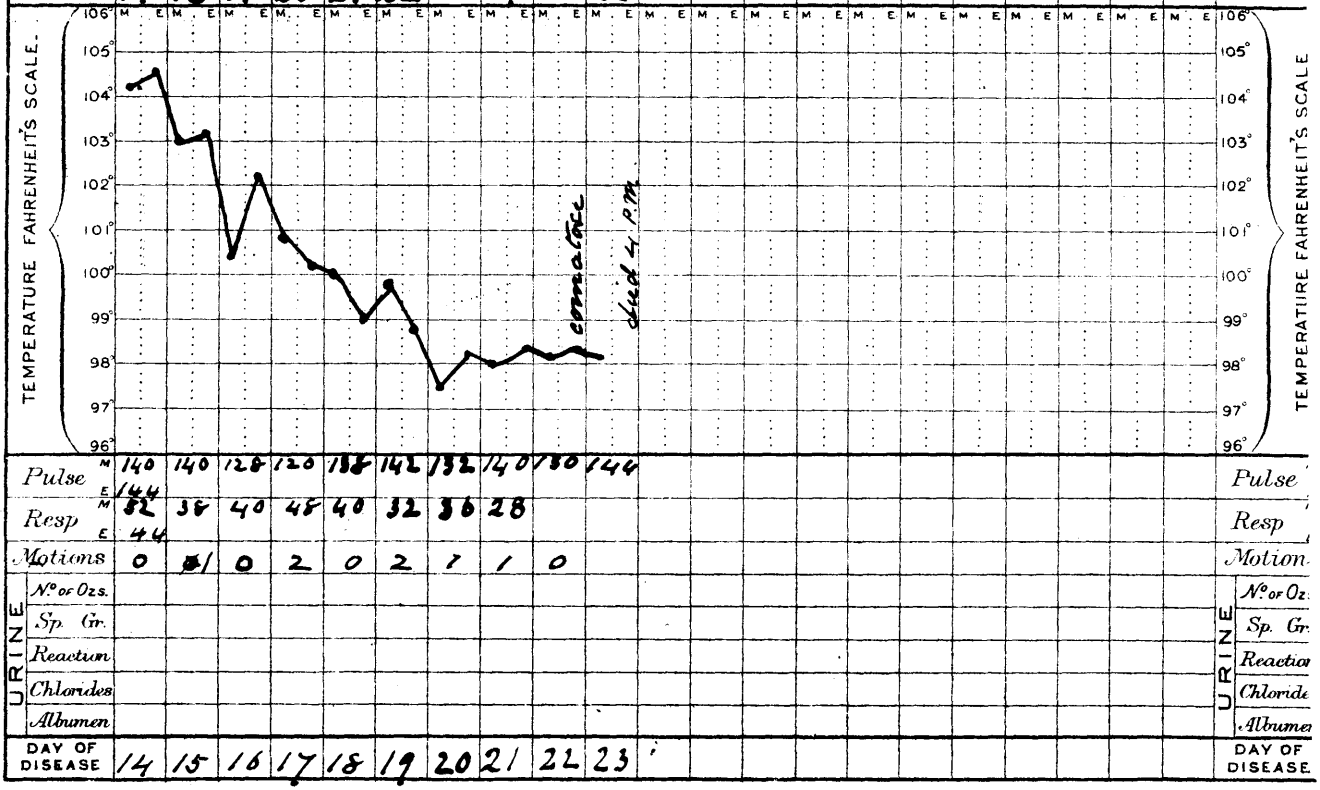
T

1890

June

CLINICAL CHART OF TEMPERATURE, &c

Name Mrs Pewter Age 40 Disease Typhus Result Died



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Wm Pewter 40. F. Died.

Admitted on the 14th day of the fever, with Inflammation of both lungs, well marked over both bases.

There was retention of urine on admittance which persisted until death on the 23rd day of the fever. She was comatose for 24 hours before death.

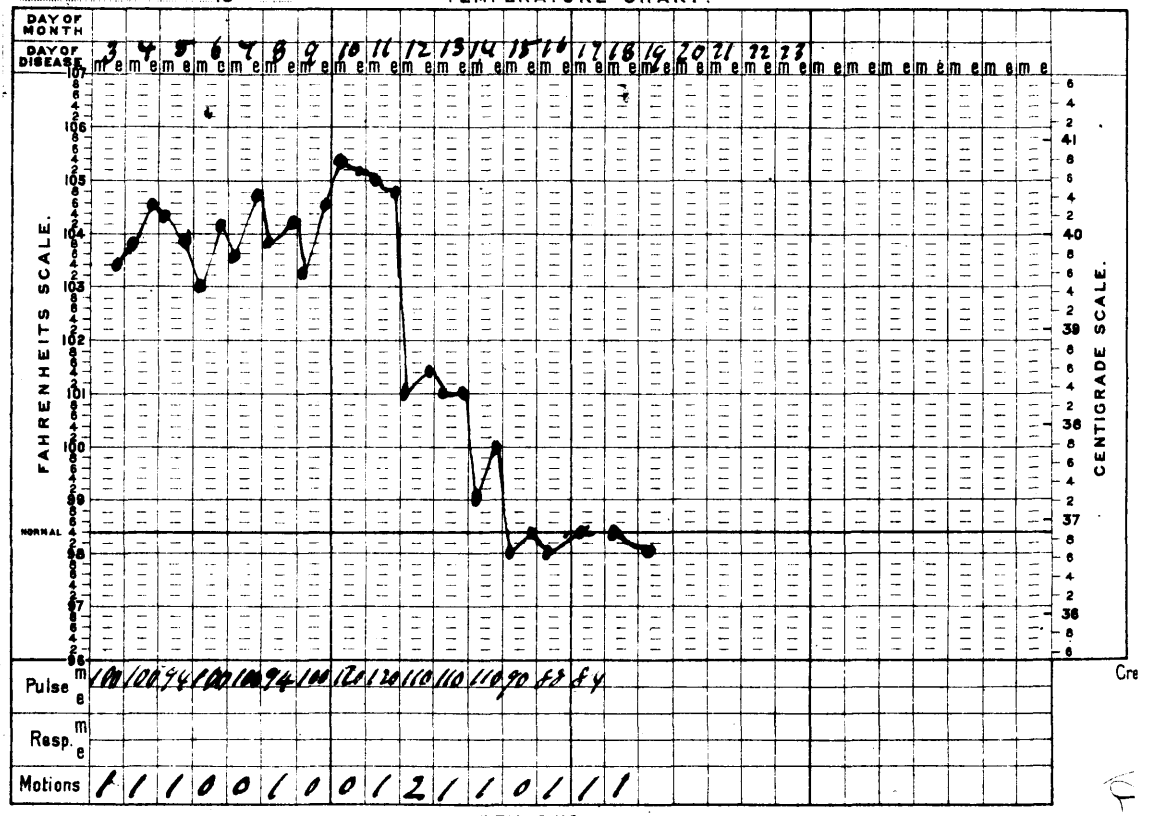
The treatment was directed towards the Pneumonia, but with little effect.

The expectoration was prune-juice colour in character the day after admission & two days afterwards was entirely stopped.

Case 6. P. Mcmahon - 24. M.

18

TEMPERATURE CHART.

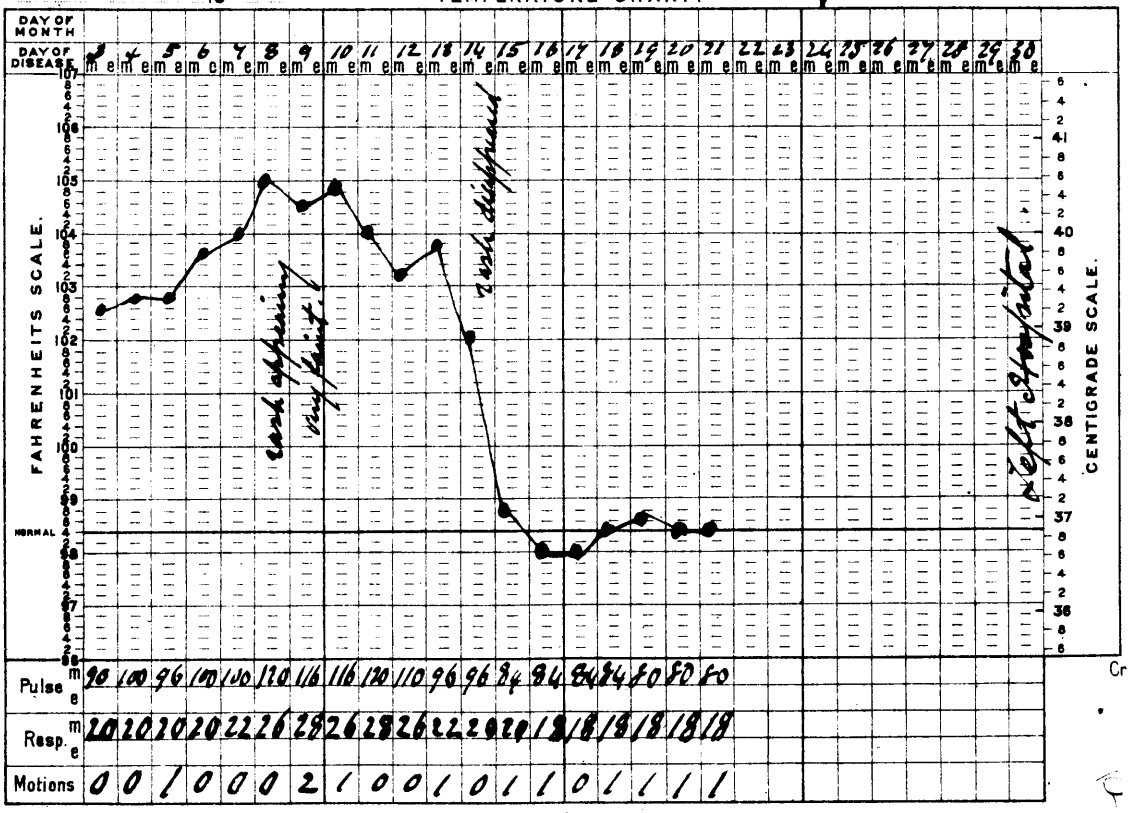


REMARKS.

No preliminary headache - or only slight.
Very high temps. - Delirium commenced Early 8 on 9, 10 & 11 days was very violent.
Ice cap to head - Inunct short. - Liq Sulph ℥ xxx on 10th & 11th days.
Urine drawn off 2ce daily from 7th day to the 13th

Case I

18 TEMPERATURE CHART. A Moloney - act 17.



REMARKS.

Rash very faint - prickled rather freely from 9th to 18 days.

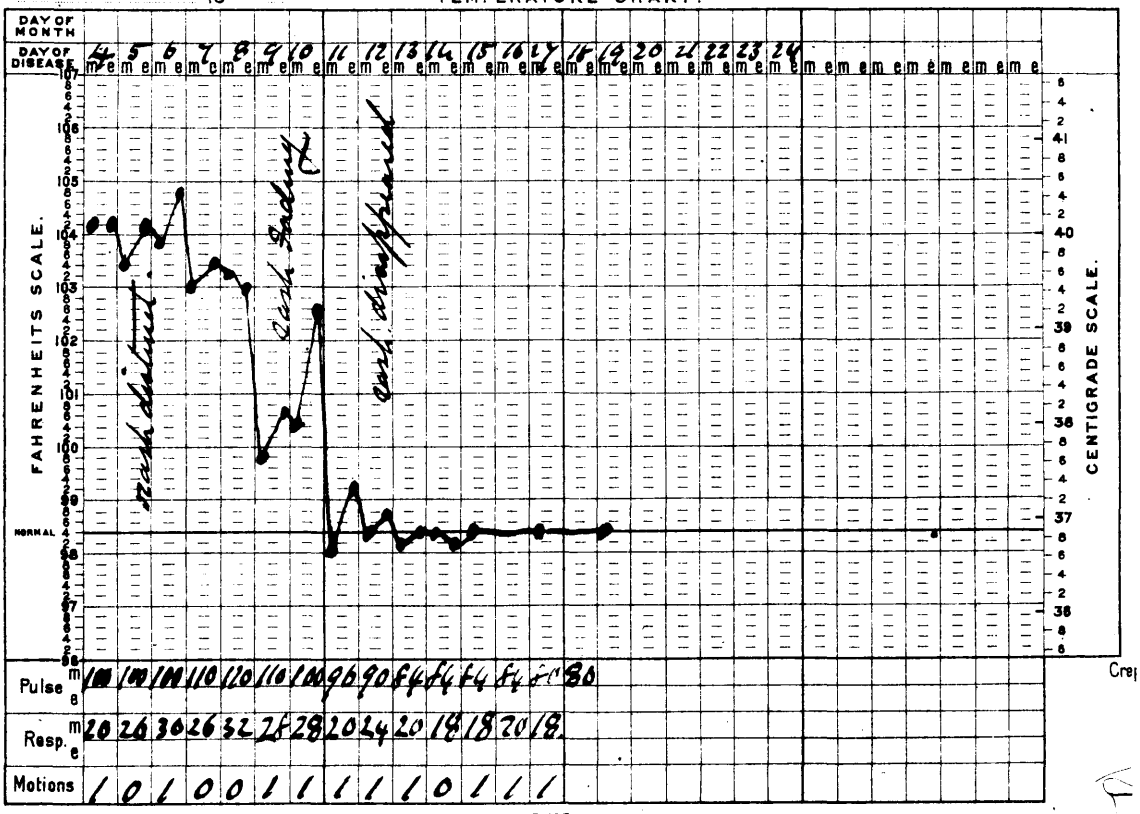
Brandy ℥ IV per diem from 8th to 16 day then ℥ II per day.
Liq. Sulph. gtt ii every 4 hours.
Urine drawn off from 4 to 8 day.

B

M. MacNamara 32 M.

18

TEMPERATURE CHART.

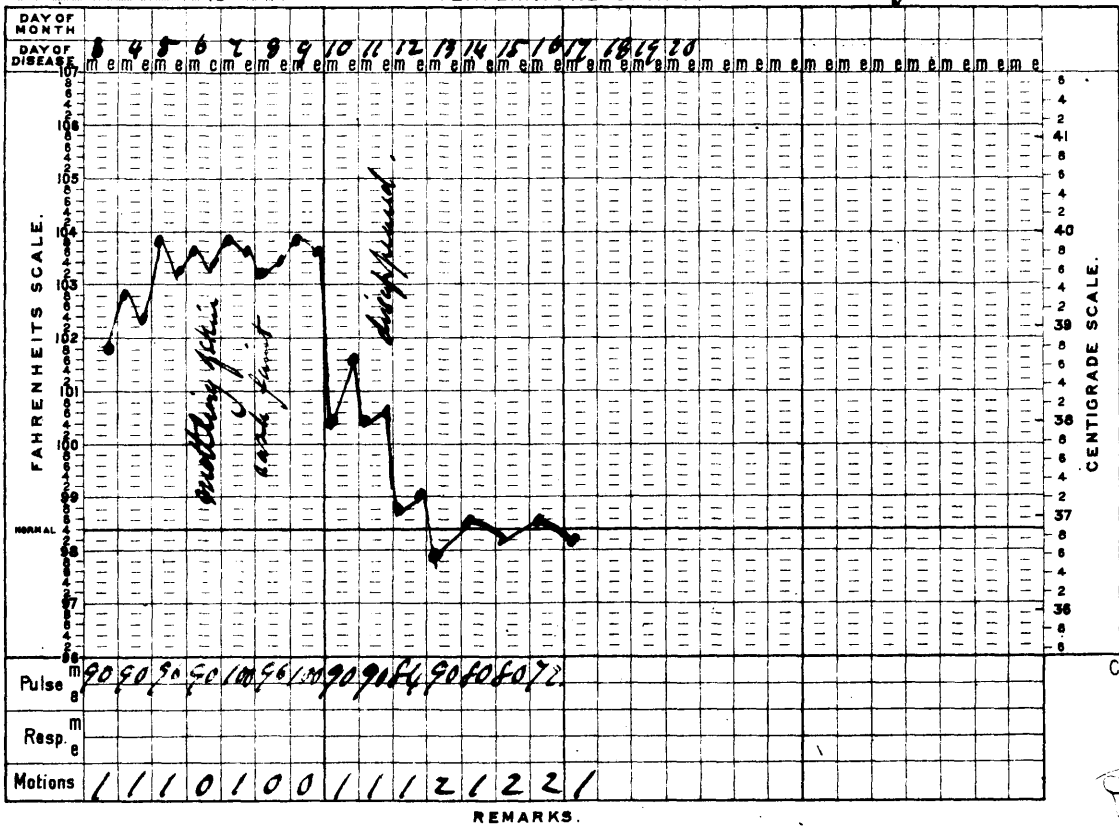


| | | |

9 P. McE. Murray. 17. M.

18

TEMPERATURE CHART.



REMARKS.

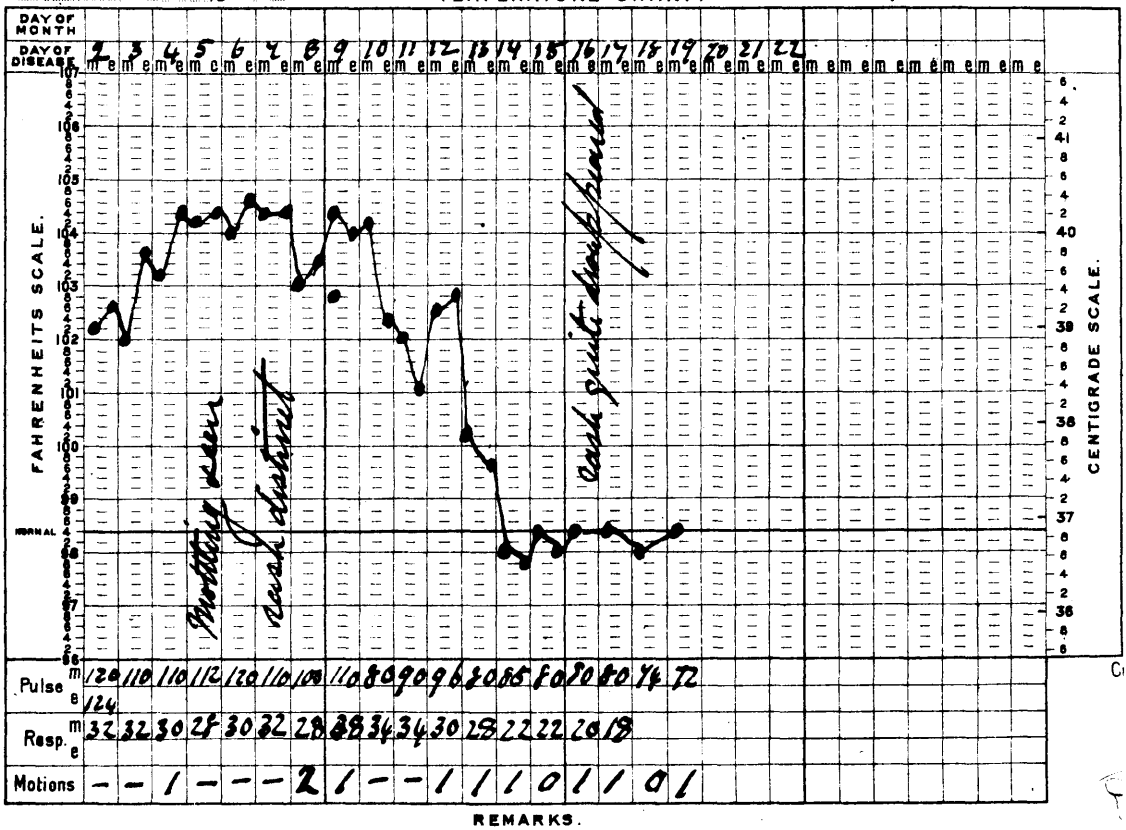
This was a very mild case: the fever was not low. The rash was indistinct & scanty, and there was very little wandering, except on 8th & 9th days. Urine & faeces passed naturally.

He was after convalescence very soon much stouter & more robust than before being laid up.

10.

Bd 2 Mac Carthy 28. F.

TEMPERATURE CHART.



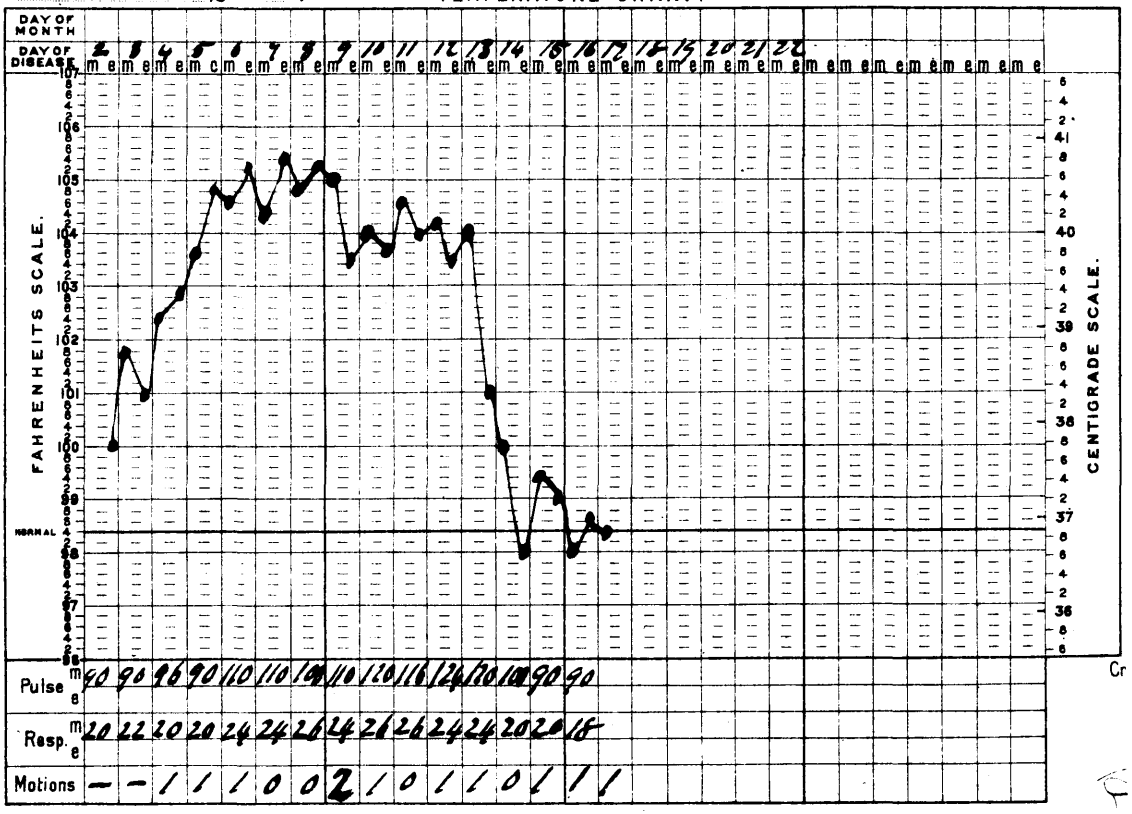
Pulse m	120	110	110	112	120	116	108	110	80	90	96	82	86	85	80	80	80	74	72			
e	124																					
Resp. m	32	32	30	28	30	32	28	28	34	34	30	28	22	22	20	19						
e																						
Motions	—	—	1	—	—	—	2	1	—	—	1	1	1	0	1	1	0	1				

REMARKS.

18 Case 11

TEMPERATURE CHART.

M. Corrie 16. F.



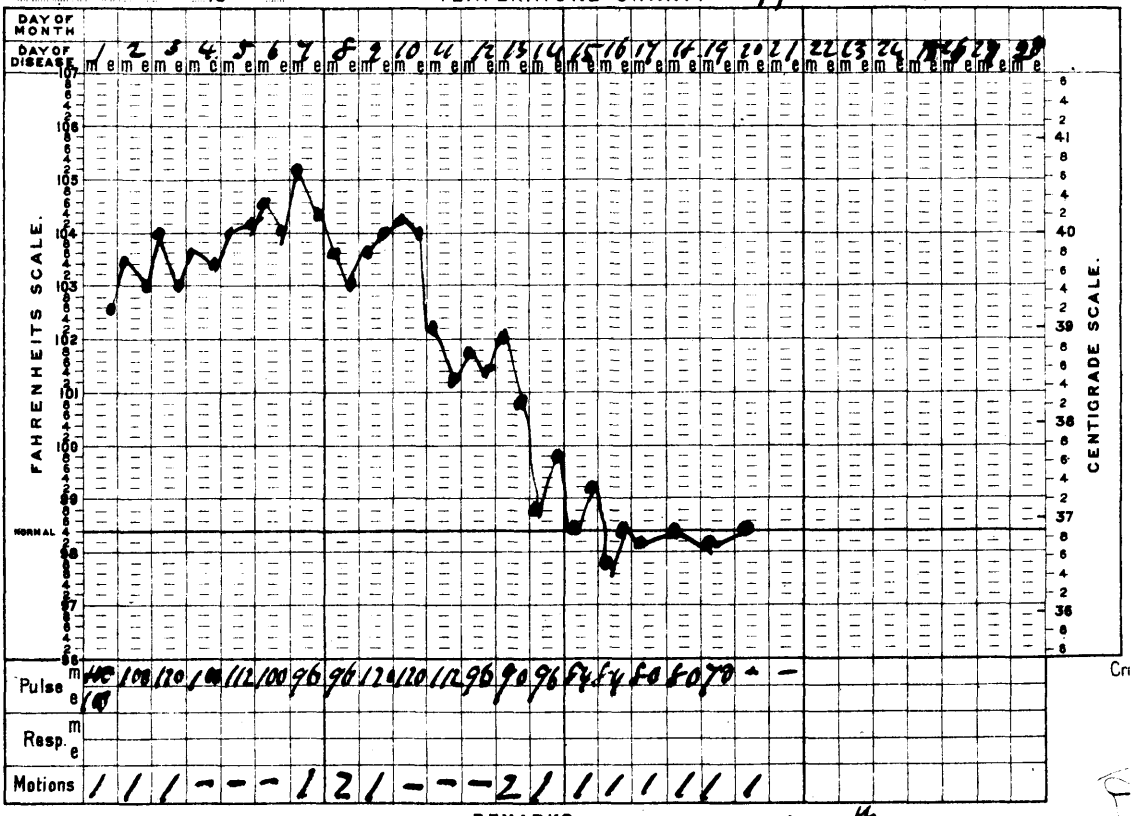
REMARKS.

The delirium of at one time from 6 to 9th day very wild Temp high - very little catarrh - rash distinct - appeared on 5th day - fading on 11th day & completely disappeared by the 13th day.

The Temp. fell very suddenly - from 104° to 96° in 32 hours.

18 12 Jno. Pepper 34. M.

TEMPERATURE CHART.



REMARKS.

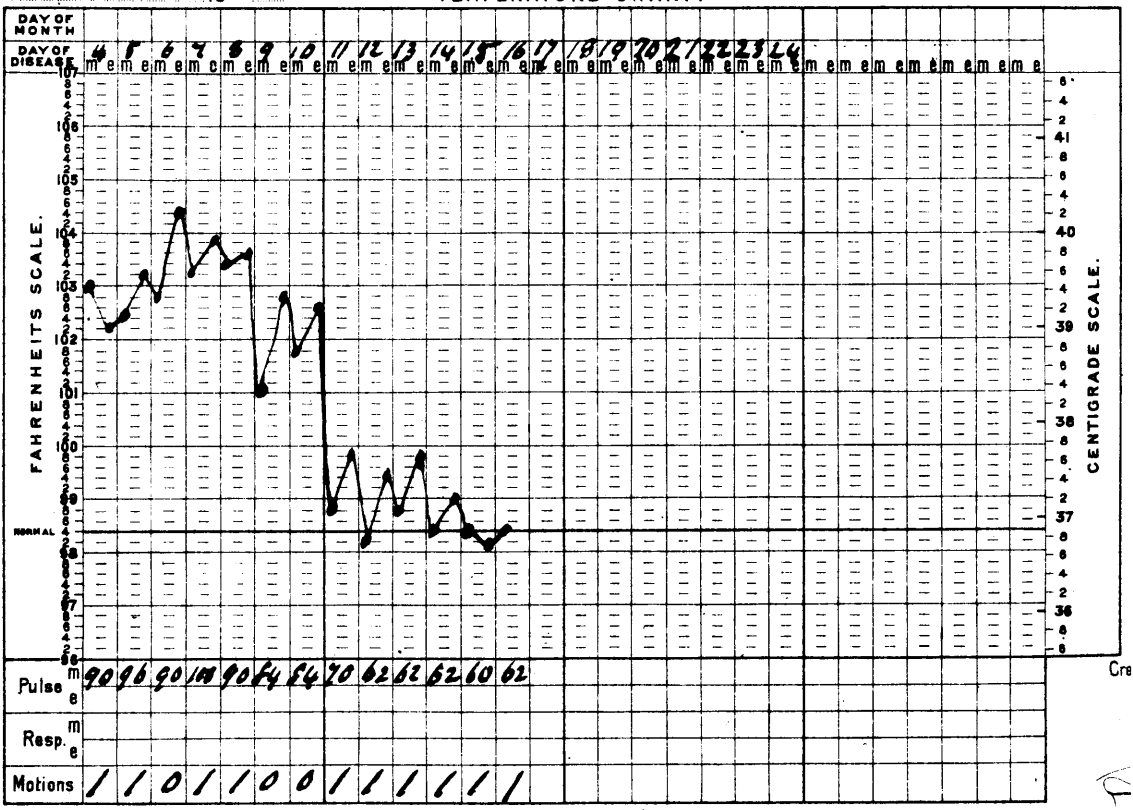
Delirium was very bad. Bedsores formed 8th day and one over sacrum about 3 inches in diameter. Faeces & urine passed in bed from 6th day.

Bromidia used - very successful.

Quin. in gr V doses every 4 hours from 7th day.

18 Case. 13 F. Powell 32 M.

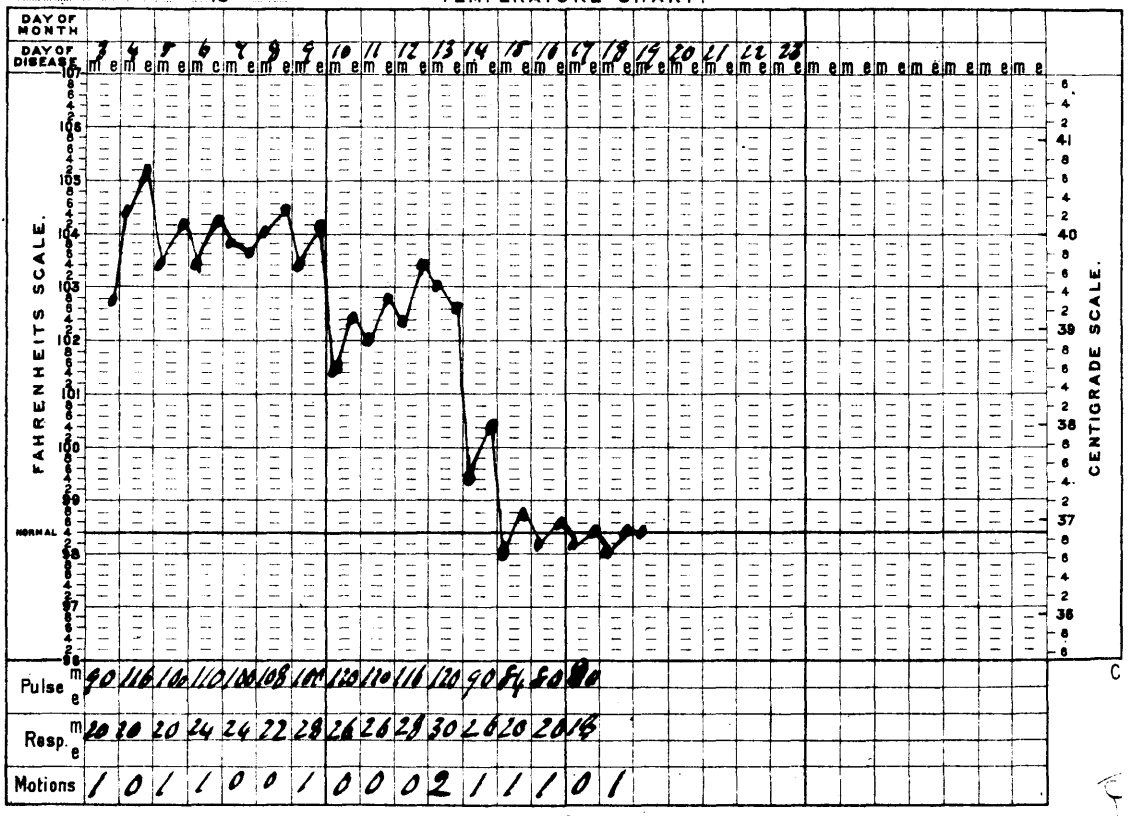
TEMPERATURE CHART.



REMARKS.

A very favourable case from admittance.
There was very little delirium, occasional wandering.
Rash distinct eruptions from the 6th day.

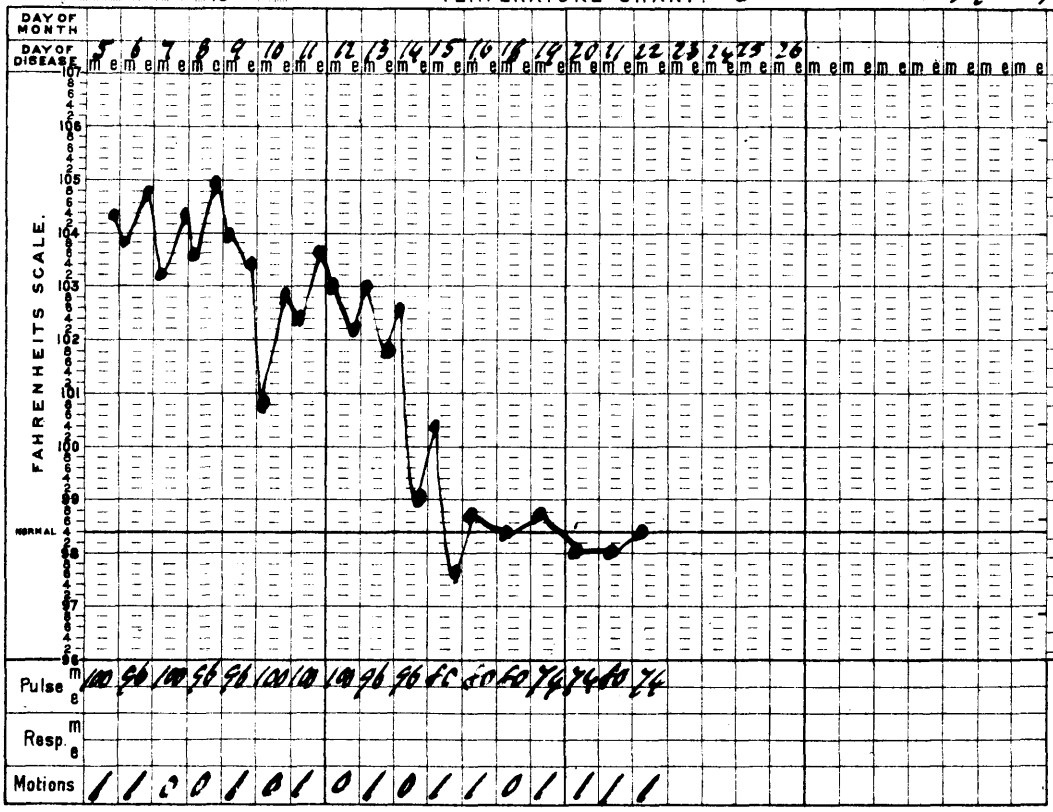
18 14 TEMPERATURE CHART. MacNamara 13 F.



REMARKS.

The high temp. on the 4th evening was probably due to the journey and of patient to hospital 14 miles in an open cart. Bowels a moderate amount of constipation, nothing called for special treatment.

18 . 15 . TEMPERATURE CHART. J. Corrie. 17 M.

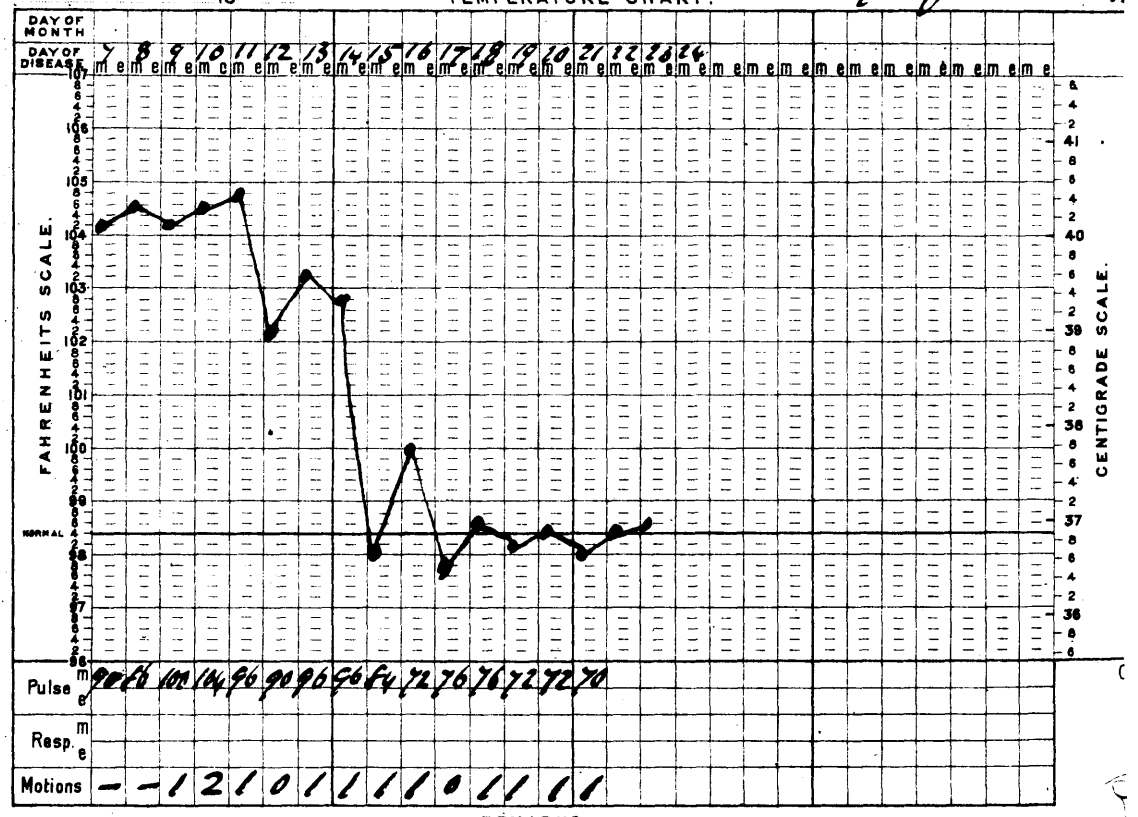


REMARKS.

A boy's bedsore on the back formed on the 6th day. - Was brought to hospital because his mine required to be dressed daily? He was living to far away to visit 2'ce daily?.

The cattank was very severe indeed after admittance. Made a good recovery? in 2 months time was much absent from prior to the decease.

18 16 TEMPERATURE CHART. J. McGarrigle 22 M.



REMARKS.

Constipation was very marked - Castor oil given on 4th 9 on 5th an enema had to be given.
Otherwise the case was a favourable one throughout.

It has been a great loss to one to have lost some full notes of the foregoing cases, but such as they are I trust they will be found to be of a certain amount of interest.

My opinion is, that the Typhus Fever of to-day is not nearly so fatal or so severe as it was from 50 to 100 years ago.

The line of treatment followed was generally to keep up the strength, - as I have written - perhaps not so fully as I might have done - as from page 44. In some of the mild cases no medicine whatever was given, with the exception perhaps of a laxative, and I do not think that medicine has any influence whatever on the fever.

I am not aware that any "Bacillus" has been discovered which is special to Typhus Fever, but I have no doubt in my own mind, that as in the other fevers, so in Typhus, "a special Micro-organism" is to be found.